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THE APPLICATION OF SCIENTIFIC METHOD TO MAKING THE COURSE OF STUDY IN CIVICS

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The very great progress which has been made in the last ten years in making curricula has been due, first, to the tendency to adopt the point of view of social utility in selecting the items which are to make up the curriculum in any subject; and secondly, to the use of scientific methods in searching out these items. If one accepts the point of view of social utility, he has answered the question, where shall one look in order to determine what knowledge, skills, attitudes, habits, and ideals should go into the curriculum, by saying that *one shall look in life outside the school*. The question, how shall one look, is answered by saying that *the curriculum-maker shall use the method of invoice*, that is, the method of scientific investigation. The implications of the social point of view are stated and exemplified in the *Fourteenth Yearbook*, Part I, the *Sixteenth Yearbook*, Part I, and the *Seventeenth Yearbook*, Part I, of the National Society for the Study of Education. These constitute reports of the Committee on Elimination, appointed by the National Education Association to investigate the problem of economy in time in education. This committee has uniformly stood for the elimination of such material as cannot be justified by referring it to specific needs in life outside the school, and has also attempted to exemplify in the various subjects the application of research to curriculum-making. It is the purpose of this article to examine some of the attempts to apply scientific method to making the course of study in civics.

It was inevitable that social sciences should be among the last to profit from the application of scientific methods. Social problems are more complex and elusive. Evidence is collected with greater difficulty. Accordingly it is not surprising that such sciences as astronomy, physics, chemistry, and biology, which are easily adapted to numerical treatment, had made great progress before anything of importance was accomplished in the social sciences. In the last few decades, however, very real and gratifying progress has been made in attacking, scientifically, the problem in such fields as economics, sociology, political science, and education. And now comes scientific method to invade the last stronghold of deduction and opinion, that is, the realm of value.

It was natural that such subjects as spelling and arithmetic should be the first to profit by such a method, the essence of which is that data shall be objective and numerical. The aims in such studies are more definite and the methods of collecting data less intricate, even though involving great labor. The social studies, such as civics, are the most difficult of all.

But why bother to apply so laborious a method in the case of this problem? Why not merely guess at the answer? The answer of the scientist is that this is the only way to discover the truth. The answer of the practical man, looking at the wide diversity of opinion as to what should be taught in civics, is that there is plainly need of evidence rather than opinion in making the course of study in this subject.

All of the investigations reviewed in this article involve certain limitations of the aims of teaching civics. In the first place, the data sought are in the field of national rather than in exclusively local or mere community civics. Communities, in other words, are not regarded as provincial, nor are they to be cut off from their national relationships. The last two or three years have demonstrated very completely the need of national and even international perspective in teaching civics.

This does not mean that we have taught local civics too well, but that we have taught national civics too poorly. In the second place, the studies shun generalizations and seek to discover what the *specific problems* are concerning which the pupil should be made intelligent, and toward which proper attitudes should be developed.

I. THE NEWSPAPER-MAGAZINE METHOD

What are some of the methods of getting data on the question of relative values in civics? One method has been designated as *the newspaper-magazine method*. Those who are acquainted with the *Fourteenth Yearbook* of the National Society for the Study of Education will recall how Professor Bagley used this method in the attempt to discover relative values in history and geography. In the summer of 1916 Mr. Earl Blackstone, in connection with a graduate course given by the author at the State University of Iowa, analyzed the same number of issues of the same magazines in the same years as those covered in the investigation reported by Professor Bagley. In this case, however, not only historical data were scored, but civic data as well. Nothing new in technique was worked out by Mr. Blackstone, but there are considerable differences between his findings and those of Dr. Bagley. The reason for this will be discussed later.

The best example that the writer has seen of the analysis of newspapers is that made by Mr. J. A. Sharon, now head of the department of history and civics in the Normal Training School at Cleveland. This investigation was completed at Teachers College, Columbia, in a seminar given by Professor Hillegas and the writer. The study consisted in the analysis of the issues of nine newspapers as follows:

1. *New York Evening Post*—February 15-24, 1914, inclusive.
2. *Philadelphia Press*—January 16-31, 1915, inclusive.
3. *Topeka Daily Capital*—January 1-15, 1915, inclusive.

4. *San Francisco Examiner*—October 1-15, 1914, inclusive.
5. *Washington Post*—October 16-31, 1914, inclusive.
6. *Springfield Daily Republican*—October 1-15, 1914, inclusive.
7. *Omaha Daily Bee*—December 1-15, 1914, inclusive.
8. *Milwaukee Sentinel*—December 16-30, 1914, inclusive.
9. *Galveston Daily News*—February 1-15, 1915, inclusive.

He reports:

The amount of space occupied by civic matter was measured. The width of column was taken into account, so that the relative space occupied could be expressed in length of column. The facts are shown in the following table:

TABLE I

| | No. of Articles | Total Length |
|---|--------------------|-----------------|
| 1. Taxation..... | 92 | 1,058.00 in. |
| 2. Foreign relations (not immigration)..... | 30 | 701.75 in. |
| 3. Suffrage..... | 51 | 559.75 in. |
| 4. Monopoly and legislation..... | 45 | 551.75 in. |
| 5. Public service commissions..... | 37 | 450.50 in. |
| 6. Liquor and prohibition..... | 31 | 339.50 in. |
| 7. Money and banking..... | 14 | 186.00 in. |
| 8. Employers and labor..... | 7 | 102.50 in. |
| 9. Pensions (all kinds)..... | 7 | 88.00 in. |
| 10. Workmen's compensation..... | 10 | 78.75 in. |
| 11. Conservation of natural resources..... | 3 | 42.00 in. |
| 12. Child labor..... | 1 | 2.80 in. |
| 13. Miscellaneous 1 and 2..... | 50 | 760.75 in. |
| 380 for class 2. | | |

"This table should be read: The subject of taxation is treated in 92 articles in the newspaper issues analyzed, and is given a total of 1,058 linear inches of space, etc.

"When the civic materials analyzed in the various newspapers are classified under (1) social needs and under (2) the civic instruments for solving social problems, social needs occupy 2,473.5 inches, and civic instruments, 2,448.25 inches. The subject of taxation appears a greater number of times and occupies much more space than that of any other topic in the

list. It is interesting to note, also, that 15.5 per cent, or more than a third of the space given to this problem, was found on the editorial page."

Mr. Sharon checked these relative values against the judgment of reputable authors writing upon civic problems and gives quotations in his study (unpublished) which seem to indicate that the weight given by his method approximates in general the weight which would be given in the judgment of supposedly competent judges.

In spite of obvious limitations the newspaper-magazine method apparently is a step away from mere opinion and in the direction of objective data. All the data described above are given in numerical terms so that at least the method of attack is improved in definiteness. The reliability of the data is dependent upon several factors.

First, it depends upon the *representative quality* of the material analyzed. Clearly, unless the newspapers do actually contain, and in the right proportion, the really important civic problems of the date of issue, no amount of analysis could secure, from such a source, the true weight in importance of these various problems. A study (as yet unpublished) made a few summers ago by Mr. Edgar Curry in a graduate class in education conducted by the writer at the University of Indiana seemed to indicate that space allotments in newspapers would be a very faulty method of assigning relative civic values in any community. For example, an analysis of one week's issues of 5 daily papers gave, according to the judgment of Mr. Curry, the following distribution:

| | Total Avg. Per Cent. |
|-----------------------|-------------------------|
| Trivial, gossip. | 20.2 |
| Sports. | 17.0 |
| Business. | 15.8 |
| Educational. | 15.0 |

| | |
|---|------|
| Politics, national government, international. | 13.0 |
| Crime and Police. | 9.4 |
| Fires, accidents. | 6.7 |
| Demoralizing. | 2.6 |

The high amount of space given to certain kinds of news is, of course, a matter of common observation. The criticism would apply to a lesser degree in the case of relative values *among* civic problems. For example, while it would be unsafe to accept space in a newspaper as a measure of the relative importance of public-school problems and prize fighting, it would be much less dangerous so to assign the relative importance of any given civic problem, as compared to any other civic problem.

In the second place, the reliability of the data depends *upon the amount of magazine or newspaper material analyzed* and the distribution of the issues in time. Furthermore, if national problems are sought, a wide distribution in area must be insured.

In the third place, there must be some way of limiting the personal equation of scoring. The wide difference in the finding of the study reported by Professor Bagley and that of Mr. Blackstone is probably due to this variability. To get some measure of this variability, eight graduate students were asked to analyze the civic problems occurring in one issue of the *Chicago Herald* according to the outline prepared by Mr. Sharon. Table II gives the results.

These differences are astounding, but they are what one may expect unless each heading is described in detail so that there can be no doubt as to what should be scored under any given heading, and unless the scorers are familiar with the field being analyzed. Of course, the more complete and similar the training of the scorers, in the special subject being analyzed, the less will be the variability arising from this cause. The writer did find, however, that there was a variation,

TABLE II

| Subject | Student | | | | | | | |
|--|---------|----|----|----|----|-----|-----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Taxation..... | 5 | 4 | 0 | 2 | 6 | 4 | 5 | 4 |
| Workmen's compensation..... | 6 | 1 | 0 | 0 | 4 | 0 | 10 | 0 |
| Liquor and prohibition..... | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 |
| Child labor..... | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Suffrage, election..... | 8 | 4 | 5 | 3 | 12 | 10 | 12 | 5 |
| Pensions, widows, mothers..... | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| Public service commissions (inter- state commerce)..... | 4 | 2 | 0 | 4 | 4 | 9 | 6 | 0 |
| Employees and labor..... | 5 | 22 | 1 | 5 | 7 | 7 | 10 | 6 |
| Money and banking..... | 3 | 4 | 8 | 2 | 3 | 15 | 13 | 3 |
| Monopoly and legislation..... | 14 | 6 | 0 | 14 | 9 | 19 | 13 | 4 |
| Foreign relations (not including investigational)..... | 29 | 12 | 4 | 12 | 20 | 18 | 36 | 12 |
| Conservations..... | 0 | 1 | 1 | 1 | 2 | 1 | 6 | 1 |
| Miscellaneous..... | | | | | | | | |
| Pure food..... | 2 | 1 | 1 | 2 | 0 | 3 | 2 | 1 |
| Immigration..... | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Reorganization of courts..... | | 0 | 1 | 0 | 0 | 19 | 2 | 0 |
| Patronage..... | | 0 | 0 | 0 | 0 | 2 | 1 | 0 |
| Civil service..... | | 0 | 2 | 0 | 1 | 1 | 0 | 0 |
| Lobbyist..... | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Farm rentals..... | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Crime..... | 5 | 12 | 1 | 13 | 0 | 0 | 10 | 0 |
| Agriculture Department..... | | 1 | | | | | | |
| Divorce..... | | 1 | | | | | | |
| Army..... | | | 1 | | | | | |
| Postal service..... | | | | | | 1 | | |
| Education..... | | | | | | 1 | | |
| Preparedness..... | | | | | | | | 5 |
| Totals..... | 43 | 54 | 30 | 61 | 77 | 115 | 137 | 42 |

among the scorers in this case, not only according to training, but also according to conscientiousness. For example, the scorer who had previously been rated by the writer as the most painstaking student reported the largest number of civic references, while the scorer who had been rated as the least painstaking member of the group reported the smallest number of civic references. As might be expected, the time spent by

the various scorers varied greatly. This suggests the possibility of the need of standardizing or of at least reporting the rate of scoring.

A fourth possible source of variability arises out of the method of scoring. One may score by frequency of mention, by linear space, or by giving a score of one and one only to any given problem for a mention, in any given paragraph, or in any given article, or in any given issue. Although laborious, it seems probable that the method of measuring linear space is probably the most nearly representative of the true weights which should be assigned by the writers of the articles, particularly when the periodical sets some limit upon the space allowed to any given department.

Summarizing, if the four limiting conditions outlined above are carefully attended to, it seems likely that an analysis of newspapers and magazines will give data suggestive and helpful to the curriculum-maker. At the very least, a careful and extensive study conducted along these lines will indicate the civic problems which are kept before the people through the agency of periodical literature. This in itself would give data which could not be disregarded by anyone who wished to undertake in a practical way the improvement of the civic knowledge, habits, and ideals in any community.

2. A STUDY OF POLITICAL PLATFORMS

By far the most elaborate study in the field of curriculum-making civics which the writer has seen is that made by Dr. Bassett at the University of Iowa, as a Doctor's thesis. His thesis is as yet unpublished, but a preliminary report appeared in the *Seventeenth Yearbook* of the National Society for the Study of Education. I shall quote briefly from portions of this report:

The investigation was undertaken with the conviction that the function of civic instruction is to prepare the pupil for citizenship in a democracy; that such instruction implies preparation for the intelligent exercise of the

elective franchise to the purpose that the voter will not be "Satisfied with merely going to the polls on election day, he will feel the thrill of executing an actual judgment"; that this result is to be obtained in part by the cultivation of civic judgment through the exercise of the mind upon concrete problems that confront the American electorate. The aim, therefore, of this investigation is to determine what are the most significant and most persistent problems of the American people which seek solution through the machinery of government.

The specialist in any line of work is most conversant with problems peculiar to his own field of endeavor. For this reason, in seeking to ascertain what problems are of most value for educational purposes, the writer has consulted the specialist in politics, viz., the professional politician.

In political platforms, state and national, have been preserved for us during a period of three-quarters of a century the carefully formulated opinions of these politicians (and shall I say statesmen?) as to what our problems are.

The writer has divided this study into the following parts: (1) an analysis of the national platforms of all the political parties since the first National Convention in the year 1832; (2) an analysis of the state platforms in non-presidential years from 1889 to the present time so far as they deal with national issues; (3) an analysis of all state platforms of the major parties in one year (1910); (4) an analysis of the platforms of the major parties in certain selected states, viz., California, Indiana, and New York, since 1850; (5) an analysis of all platforms of the parties in Iowa since 1889, and (6) an analysis of the platforms of one southern state. . . .

The states of California, Indiana, and New York were selected because they are or have been in national elections "pivotal" states, in which, therefore, because the balance of power was uncertain, political interest was acute.

Iowa represents a conservative Republican state which has had but one Democratic governor (Governor Boies) and has but once gone Democratic on the presidential ticket (1912). A state from the "solid South" would, of course, represent the conservative Democratic tendencies.

The units of measurement used were as follows: (1) The linear inch. This unit is entirely impartial and is justified upon the assumption that, given a sufficiently long period of time, the topics most discussed are most important. (2) Frequency of mention, i.e., the number of platforms in which a given topic occurs. (3) Single platform proposal, i.e., the number of distinct proposals falling under each topic.

Space permits quoting but two of Mr. Bassett's tables (Tables III and IV of this article) as illustrations of the results obtained in the study.

TABLE III
SPACE GIVEN TO VARIOUS ITEMS IN NATIONAL PLATFORMS
SUMMARIZED BY PERIODS

| TOPICS | LINEAR INCHES | | | | | PERCENTAGES | | | | |
|-----------------------|---------------|-------|-------|-------|-------|-------------|------|------|------|------|
| | Period | | | | | Period | | | | |
| | I | II | III | IV | V | I | II | III | IV | V |
| Commerce..... | 966 | 31 | 995 | 286 | 709 | 3.0 | 0.6 | 3.7 | 3.1 | 4.0 |
| Constitution..... | 523 | 214 | 309 | 460 | 79 | 1.6 | 4.4 | 1.1 | 4.9 | 0.4 |
| Corporations..... | 2,529 | 70 | 2,459 | 501 | 1,958 | 7.5 | 1.4 | 9.1 | 5.4 | 10.9 |
| Defense..... | 1,556 | 428 | 1,128 | 146 | 982 | 4.8 | 8.6 | 4.2 | 1.6 | 5.5 |
| Education..... | 332 | 0 | 332 | 239 | 93 | 1.0 | 0.0 | 1.2 | 2.6 | 0.5 |
| Finance..... | 4,176 | 610 | 3,566 | 1,684 | 1,882 | 12.0 | 12.4 | 13.2 | 18.1 | 10.5 |
| Foreign relations.... | 2,689 | 387 | 3,202 | 591 | 1,711 | 8.3 | 7.9 | 8.5 | 6.3 | 9.5 |
| Health..... | 174 | 0 | 174 | 0 | 348 | .5 | 0.0 | 0.6 | 0.0 | 1.9 |
| Immigration..... | 803 | 199 | 604 | 350 | 1,007 | 2.5 | 4.0 | 2.2 | 3.8 | 5.5 |
| Industry..... | 467 | 0 | 467 | 73 | 861 | 1.4 | 0.0 | 1.7 | 0.8 | 4.8 |
| Justice..... | 349 | 0 | 349 | 35 | 663 | 1.1 | 0.0 | 1.3 | 0.4 | 3.7 |
| Labor..... | 2,383 | 10 | 2,373 | 486 | 1,897 | 7.3 | 0.2 | 8.8 | 5.2 | 10.6 |
| Legislation..... | 475 | 129 | 346 | 99 | 247 | 1.5 | 2.6 | 1.3 | 1.1 | 1.4 |
| Monetary system.... | 2,300 | 14 | 2,286 | 545 | 1,721 | 7.1 | 0.3 | 8.8 | 5.9 | 9.6 |
| Moral reform..... | 3,533 | 1,756 | 1,777 | 1,078 | 690 | 10.9 | 35.6 | 6.8 | 11.6 | 3.9 |
| Naturalization..... | 24 | 15 | 9 | 0 | 0 | 0.1 | 0.3 | | 0.1 | 0.0 |
| Natural resources.... | 1,470 | 128 | 1,342 | 426 | 816 | 4.5 | 2.6 | 5.0 | 4.6 | 4.6 |
| Office..... | 1,798 | 186 | 1,612 | 922 | 690 | 5.5 | 3.8 | 5.9 | 9.9 | 3.1 |
| Parties..... | 1,012 | 161 | 851 | 350 | 501 | 3.1 | 3.3 | 3.1 | 3.8 | 2.8 |
| Pensions..... | 582 | 43 | 539 | 231 | 256 | 1.8 | 0.9 | 2.0 | 2.5 | 1.4 |
| Personal rights..... | 392 | 157 | 235 | 73 | 162 | 1.2 | 3.2 | 0.9 | 0.8 | 0.9 |
| Postal system..... | 171 | 7 | 164 | 43 | 121 | 0.5 | 1.1 | 0.6 | 0.5 | 0.7 |
| State rights..... | 527 | 260 | 267 | 24 | 243 | 1.6 | 5.3 | 1.0 | 0.3 | 1.3 |
| Suffrage..... | 574 | 9 | 567 | 313 | 252 | 2.8 | 0.2 | 2.0 | 3.4 | 1.4 |
| Territories..... | 1,366 | 421 | 324 | 167 | 1,157 | 4.3 | 0.9 | 4.9 | 1.8 | 6.5 |
| Works..... | 897 | 170 | 727 | 78 | 649 | 2.8 | 3.5 | 2.7 | 0.8 | 3.6 |

Column I: 1844 to 1916

Column II: 1844 to 1868 (Pre-reconstruction Period)

Column III: 1868 to 1916 (Post-reconstruction Period)

Column IV: 1872 to 1892

Column V: 1892 to 1916

"Table III should be read: Considering the entire period from 1844 to 1916, commerce occupied 966 linear inches of space in the entire period from 1844 to 1916; 31 inches in the period 1844 to 1868, etc. In other words, commerce occupies 3 per cent of the space in the entire period, 6 per cent in the period 1844-68, etc.

"It is interesting to compare the results of Table III, dealing with national platforms on national issues, with Table IV, which summarizes the state platforms on state issues. It should be noted that the unit of measure in Table IV is different from that in Table III."

TABLE IV
PROPOSALS IN STATE PLATFORMS ABOUT STATE ISSUES IN 1910

| TOPICS | NUMBER OF PROPOSALS | | | |
|-----------------------------|---------------------|------------|-------|-------|
| | Democrat | Republican | Total | Rank |
| Office..... | 248 | 130 | 378 | 1 |
| Corporations..... | 91 | 65 | 156 | 2 |
| Labor..... | 80 | 73 | 153 | 3 |
| Finance..... | 79 | 66 | 145 | 4 |
| Natural resources..... | 59 | 51 | 110 | 5 |
| Moral reform..... | 49 | 50 | 99 | 6 |
| Works, public..... | 43 | 37 | 80 | 7 |
| Education..... | 38 | 34 | 72 | 8 |
| Legislation..... | 36 | 24 | 60 | 9 |
| Industry..... | | 25 | 55 | 10 |
| Constitution..... | 27 | 19 | 46 | 11 |
| Justice..... | 19 | 22 | 41 | 12 |
| Parties..... | 21 | 15 | 36 | 13 |
| Health..... | 5 | 13 | 18 | 14 |
| Municipal corporations..... | 9 | 6 | 15 | 15 |
| Monetary system..... | 6 | 4 | 10 | 16 |
| Pensions..... | 3 | 4 | 7 | 17 |
| Immigration..... | 3 | 3 | 6 | 18 |
| Miscellaneous..... | 8 | 13 | 21 | |

The author's conclusions as to the application of his data to curriculum-making are as follows:

1. Certain problems, in their broad outlines, are necessarily persistent, since they are inherent in the structure or constituent functions of government, e.g., public finance, public office, foreign relations, and national defense.

2. Certain other problems are persistent from the economic organization of society, e.g., corporations (representing the capitalist), labor (representing the producer), and natural resources (representing the third factor of production).

3. A third group of problems, which the writer has classified under "moral reform," is necessarily persistent so long as there are men and women who are forward-looking and subject to humanitarian impulses; and so long as a democratic form of government renders all social problems potentially political. The term "moral reform" has been used in lieu of the more commonly employed term "social reform" for the reason that a moral judgment rather than an economic or administrative judgment is the determining factor in the voter's decision.

4. Certain other problems are relatively persistent as corollary to our governmental or economic organization and status, e.g., immigration (a result of better economic opportunities in this country than obtain in other parts of the world), foreign commerce (a result of our power of economic production), state rights (a result of the historic origin of the Federal government), constitutions (fundamental limitation of governmental action), and political parties (arising from the problem of registering the popular will).

5. The responsibility for the solution of these various items has been distributed among the three most important units of government in this country, viz., national, state, and municipal, or local, government. For example, foreign relations belong exclusively to the Federal government; conduct of elections and suffrage qualifications largely to the states; education is delegated largely to the local units.

6. There are certain tendencies evident from a careful study of the data: the problems of strict or liberal construction of the Constitution, state rights, personal rights, etc., tend to become of less importance in political discussion while labor, corporations, and foreign relations tend to become of more importance; still other problems like public finance, commerce, and defense about hold their own; health, industry, and justice appear to be gaining in importance; all topics of discussion are fundamentally affected by two general trends which the writer believes he discovers beneath the surface of our national life—the trend toward more efficient nationalism and toward more complete democracy, through the socialization of industry and the democratization of parties.

7. From all that has gone before, it is safe to assume that any course of instruction the purpose of which is to prepare for intelligent suffrage through the exercise of civic judgments upon concrete problems should contain at least the following topics: Finance—federal, state, municipal, and school district; office, elections, civil service, etc., including the related topics of parties and suffrage as applied to the locality; corporations; labor; foreign relations, including relations to defense and commerce; natural resources,

conservation, and reclamation; monetary system—money, banking, and credit; and the present moral issues of nation, state, and community.

8. Recognizing with Professor Keatinge of Oxford (*Studies in Education*) that grave difficulties lie in the way of any adequate treatment of politics in the public school, but likewise recognizing with him the necessity of such preparation in an increasingly democratic state, the writer believes such instruction is feasible and necessary. The following quotation expresses his view of the need: "To anyone who considers that the final decision as to policy and legislation of every kind, imperial, financial, and social, is made, theoretically at any rate, by the mass of individual voters, to anyone who considers further that the number of male voters is in the near future sure to be largely increased and that probably there will be added to them a large number of female voters, there can be little doubt that an important duty of our schools is to give a training which shall enable our children, as they grow up, to take an intelligent interest in political life, and to register their votes when the time comes for them to do so in connection with some intelligible body of principles."

Summarizing, the investigation attacks the problem of selecting civic values rather more directly than those which proceeded by analyzing periodicals. In the field of suffrage needs, it gives the problems which have most persistently confronted the citizens at the polls. And while in certain particulars the post-war conditions will no doubt change to some extent the relative value to be assigned to these problems, it is not likely that any problem appearing in the first table will drop out of sight. In most cases, moreover, shifts in emphasis will be in the direction of tendencies already indicated in that table.

Other studies should deal with other phases of civic responsibility. Particularly there is needed an analysis of the types of legal action in typical communities to search out the legal knowledge which the ordinary citizen should have.¹

¹ Since this article was written, Mr. G. H. Alderman, in connection with the writer's seminar in curriculum-making, has undertaken this analysis of the legal action in a typical community.

3. HISTORICAL BACKGROUND FOR CIVIC INSTRUCTION

One of the propositions which has been continuously before the school superintendents is that instruction in history should be so organized as to throw light on civic problems. During the year 1916-17, in connection with the writer's seminar at the State University of Iowa, Mr. J. A. Swisher began a study of the implication problem. A preliminary report of the study was published in the *Seventeenth Yearbook* of the National Society for the Study of Education, Part I, appearing through an error in printing under Mr. Bassett's name. The study has since been completed as a Master's thesis.

Mr. Swisher's hypothesis in brief is that if a representative list of the more crucial modern civic problems could be secured, and if, among the books dealing with each problem, those be selected which give the clearest statement of that problem, it might be expected that those books would contain at least the sort of history, or amount of historical reference which in the judgment of the authors is essential to a proper understanding of the modern civic problems they are discussing.

He scored standard treatments of twenty-two modern problems which in the judgment of teachers of political science are among the most important political problems; and scored also the treatment of the same twenty-two problems in the *Cyclopedia of American Government*. His unit of measure was that of paragraph mention, that is, the number of different paragraphs in which some mention of a given problem was found. He outlines his problem as follows:

An attempt was made to secure the following classes of data: (1) the historical characters referred to in each book; (2) specific dates, and (3) the frequency of reference to the leading foreign countries; and (4) historical movements, events, conditions, and problems. For periods prior to 1860, the classification was made to correspond to that followed by Dr. Horn in his study in the *Sixteenth Yearbook*. Following the date of 1860, ten-year periods were used.

Space permits quoting the result of but one part of the investigation: the distribution of references according to the period in history in which they are found. Mr. Swisher's data are compared with a study made by the writer in an attempt to discover the historical background of *social, economic, and civic* problems (published in the *Sixteenth Yearbook* of the National Society for the Study of Education), and with the analysis of text-books made by Bagley and Rugg, and published by the University of Illinois as *Bulletin No. 16*. Tables V and VI show the results referred to.

TABLE V
HISTORICAL REFERENCES CLASSIFIED BY PERIODS

| PERIOD | HORN | | BAGLEY AND RUGG | Present Work |
|--------------------------------|-------|---------------------------------------|--------------------------|-----------------|
| | Books | Inter- national Cyclo- pedia | Elemen- tary Texts | |
| Unclassified..... | | 3.70 | | |
| Discovery and exploration..... | 0.1 | 0.67 | 8.27 | 0.93 |
| Col. to 1764..... | 2.5 | 2.00 | 19.62 | 2.46 |
| 1764-1783..... | 3.8 | 3.50 | 13.69 | 1.72 |
| 1783-1812..... | 1.8 | 6.00 | 14.17 | 4.38 |
| 1812-1861..... | 4.7 | 11.00 | 21.00 | 16.39 |
| 1861-..... | 85.7 | 74.00 | 24.67 | 74.12 |

TABLE VI
REFERENCES TO MODERN PERIOD FURTHER ANALYZED

| PERIOD | Percentage of References to Each Period |
|-----------------------|--|
| 1860-1870..... | 3.58 |
| 1870-1880..... | 7.04 |
| 1880-1890..... | 10.53 |
| 1890-1900..... | 20.53 |
| 1900-1910..... | 22.17 |
| 1910-1917..... | 10.27 |
| Total since 1860..... | 74.12 |

The contributions and limitation of the study are well stated in the author's own words:

An investigation of this sort cannot, of course, prescribe the details of a course of study. But in general, the indications seem to be that, aside from the names of presidents, those of economists are the names with which a student of modern political problems needs to be familiar; that a knowl-

edge of recent dates (especially since 1890) and of the recent period in American history (again especially since 1890, for 53 per cent of all references to periods belong to this one), together with a knowledge of the Federal Constitution, is that American historical knowledge which is for him the most illuminating; and that of foreign lands, England outweighs all the rest in contributions towards the problems he has to solve. This apparent importance of England, may, however, be due to our common language. Works in other languages are on the whole much less accessible to such authors as wrote the books in question. In conclusion it may be well to repeat that this study has not aimed to consider the historical background of any other than this political phase of modern life.

GENERAL CONCLUSIONS

These studies are pioneer studies in applying scientific method to making curricula in civics. They are suggestive of new investigations which are needed to round out the appraisal of civic needs. They do more. They furnish data which in spite of their limitations are useful in suggesting reconstruction in attempt at civic instruction. The studies of Sharon, Curry, Bagley, and Blackstone, if they do nothing more, point out the importance of teaching the pupil how to choose and evaluate periodical literature with respect to civic information. Mr. Bassett's conclusion may be taken as far more nearly final and can hardly be neglected in apportioning time among various phases of instruction in state and national civics. Mr. Swisher's study indicates clearly the relatively great importance of the history since 1812 (as compared with any earlier period) as a background essential to intelligent citizenship. The late war, with its consequent problems of reconstruction, has still further increased the relative importance of recent history.

The scope of this article does not permit a more detailed treatment of the application of these data to the practical work of curriculum-making. The ultimate justification of these and similar investigations must of course be found in the guidance given in such practical work. Investigations are reviewed here, however, primarily to illustrate *the method* by which one may secure the raw materials out of which the structure of the curriculum in civics may be built.